

selected portion of said information database one or more scheduled transmission times;

transmission means, coupled to said scheduling means and said one or more computer memory devices, for transmitting a stream of data packets containing said selected portions of said information database in accordance with said scheduled transmission times;

said scheduling means including means for dividing said selected portions of said information database into a prioritized set of tiers, wherein all the selected portions of said information database in each tier are transmitted at a corresponding repetition rate, wherein the repetition rate for higher priority tiers is higher than the repetition rate for lower priority tiers; and

subscriber stations which receive said transmitted stream of data packets, each subscriber station including filtering means for storing filter data corresponding to a subset of said indices, said filter data specifying a set of requested data packets which comprises a subset of said transmitted data packets, and for downloading into a memory storage device those of said received data packets which match said specified set of requested data packets.

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2. (amended) The information transmission system of claim 1, wherein

said set of indices include timestamps therein indicating when each said portion of the information database referenced by an index is [schedule] scheduled to be transmitted; and

said subscriber stations including means for decoding said timestamps in said indices;

whereby subscribers can be informed as to [the how long it will take to receive] when a specified portion of the information database will be received.

*Sabt* 5. (amended) The information transmission system of claim 1,  
[wherein]

*B3* said transmission means [includes] including a central program transmission station which transmits said stream of data packets, and one or more cable television systems which receive the transmitted stream of data packets and retransmit said stream of data packets via cables to a set of subscribers, said central program transmission station including means for transmitting in said stream of data packets special data packets indicating where in said stream of data packets local programming data packets may be inserted; and

*A2* one or more of said cable television systems including means for inserting into the stream of retransmitted data packets local programming data packets at positions in said stream of data packets indicated by said special data packets.

6. (amended) The information transmission system of claim [5]  
1, [wherein]

said transmission means including a central program transmission station which transmits said stream of data packets, and one or more cable television systems which receive the transmitted stream of data packets and retransmit said stream of data packets via cables to a set of subscribers, said central program transmission station including means for transmitting in said stream of data packets special data packets designated as suitable for pre-emption by local programming; and

one or more of said cable television systems includes [the ability to insert] means for inserting into the stream of retransmitted data packets additional "local programming" data packets so as to pre-empt said special data packets designated as suitable for pre-emption.

*A3* 8. (amended) The information transmission system of claim 1, wherein one or more subsets of said subscriber stations are interconnected via a local area network, including a network

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server which receives said transmitted stream of data packets on behalf of an associated set of [subscribers] subscriber stations, said network server including means for referencing a specified set of data packets, said specified set of data packets representing data packets requested by said associated set of [subscribers] subscriber stations, and means for downloading into a memory storage device those of said received data packets which match said specified set of requested data packets;

whereby overhead associated with receiving the stream of data packets and downloading for storage a specified subset thereof is shared by a set of subscribers.

*a4*

11. (amended) The information transmission system of claim 1, said filtering means comprising a buffer for temporarily storing received data packets, a filter list storage device for storing [packet] said filter data referencing said specified set of requested data packets, and processing means for comparing said data packets temporarily stored in said buffer with said [packet] filter data and then forwarding those data packets in said buffer which match said [packet] filter data to a predefined destination;

whereby each subscriber station receives all transmitted data packets but forwards only requested data packets to said predefined destination.

*a5*

13. (amended) An information transmission system comprising:  
a set of one or more computer memory devices on which is stored an information database;

database editing means, coupled to said one or more computer memory devices, for generating a [hierarchically arranged] set of indices for referencing data in said information database, including distinct indices for referencing distinct portions thereof, and for embedding said indices in said information database; said database editing means further including means for

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*Cmt*

embedding in said information database cross-referencing indices  
for cross-referencing related information:

[scheduling means for scheduling transmission of selected portions of said information database, including assigning each selected portion of said information database one or more scheduled transmission times;]

transmission means, coupled to [said scheduling means and] said one or more computer memory devices, for transmitting a stream of data packets containing [said] selected portions of said information database; [in accordance with said scheduled transmission times;] and

a multiplicity of subscriber stations for receiving said transmitted stream of data packets, each subscriber station including filtering means for storing filter data corresponding to a subset of said indices, said filter data specifying a set of requested data packets which comprises a subset of said transmitted data packets, and for downloading into a memory storage device those of said received data packets which match said specified set of requested data packets;

    said filtering means furthermore including look ahead means for automatically adding, in accordance with predefined criteria, data corresponding to ones of said cross-referencing indices embedded in said downloaded data packets to said filter data so as to specify [specifying] additional data packets to be downloaded; [, wherein said requested data packets and said additional data packets each have associated indices at defined positions in said hierarchically arranged set of indices and said additional data packets are selected using predefined criteria with regard to said defined positions of their associated indices relative to the defined positions of said requested data packets;]

    whereby said subscriber station automatically downloads data packets containing data related to data contained in requested data packets, thereby anticipating potential additional requests that a user may make and speeding access thereto.

14. (amended) The information transmission system of claim 13,  
wherein

said set of indices include timestamps therein indicating  
when each said portion of the information database referenced by  
an index is [schedule] to be transmitted; and

said subscriber stations including means for decoding said  
timestamps in said indices;

whereby subscribers can be informed as to [the how long it  
will take to receive] when a specified portion of the information  
database will be received.

*14* 15. (amended) The information transmission system of claim *14*,  
wherein

*a5*  
*cont*  
each timestamp includes a repetition rate value indicating  
how often the associated portion of the information database is  
transmitted, and a time skew value indicating in conjunction with  
said repetition rate value a [scheduled] transmission time for  
the associated portion of the information database.

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*B7*  
16. (amended) The information transmission system of claim 15,  
further including scheduling means for scheduling  
transmission of selected portions of said information database,  
including assigning each selected portion of said information  
database one or more scheduled transmission times:

wherein the timestamp in indices referencing portions of the  
information database not scheduled for transmission is null,  
indicating that said referenced portions of the information  
database are transmitted only upon request by subscribers.

17. (amended) The information transmission system of claim 13,  
[wherein]

said transmission means [includes] including a central  
program transmission station which transmits said stream of data  
packets, and one or more cable television systems which receive  
the transmitted stream of data packets and retransmit said stream

*AS cont*

of data packets via cables to a set of subscribers, said central program transmission station including means for transmitting in said stream of data packets special data packets indicating where in said stream of data packets local programming data packets may be inserted; and

one or more of said cable television systems including means for inserting into the stream of retransmitted data packets local programming data packets at positions in said stream of data packets indicated by said special data packets.

18. (amended) The information transmission system of claim [17] 13, [wherein]

said transmission means including a central program transmission station which transmits said stream of data packets, and one or more cable television systems which receive the transmitted stream of data packets and retransmit said stream of data packets via cables to a set of subscribers, said central program transmission station including means for transmitting in said stream of data packets special data packets designated as suitable for pre-emption by local programming; and

one or more of said cable television systems includes [the ability to insert] means for inserting into the stream of retransmitted data packets additional "local programming" data packets so as to pre-empt said special data packets designated as suitable for pre-emption.

19. (amended) The information transmission system of claim 13, [wherein a portion of the transmission bandwidth available to said transmission means is reserved]

said transmission means including means for assigning transmission times to said selected portions of said information database and reserving transmission times for transmitting portions of said information database requested by subscribers;

said information transmission system including subscriber request response means for receiving requests from subscribers,

*a<sup>5</sup>*  
said requests each specifying a portion of said information database; and

    said [scheduling] transmission means including means for [scheduling transmission of] transmitting said requested portions of said information database during said reserved transmission times.

20. (amended) The information transmission system of claim 13, wherein one or more subsets of said subscriber stations are interconnected via a local area network, including a network server which receives said transmitted stream of data packets on behalf of an associated set of [subscribers] subscriber stations, said network server including means for referencing a specified set of requested data packets, said specified set of requested data packets representing all data packets requested by said associated set of [subscribers] subscriber stations, and means for downloading into a memory storage device those of said received data packets which match said specified set of requested data packets;

said network server further including means for adding, in accordance with predefined criteria, data packets corresponding to ones of said cross-referencing indices embedded in said downloaded data packets to said set of requested data packets so as to specify additional data packets to be downloaded;

    whereby overhead associated with receiving the stream of data packets and downloading for storage a specified subset thereof is shared by a set of subscribers.

*a<sup>6</sup>*  
23. (amended) The information transmission system of claim 13, said [subscriber stations] filtering means including [a data filter subsystem comprising] a buffer for temporarily storing received data packets, a filter list storage device for storing [packet] said filter data referencing said specified set of requested data packets, and processing means for comparing said data packets temporarily stored in said buffer with said [packet]

filter data and then forwarding those data packets in said buffer which match said [packet] filter data to a predefined destination;

whereby each subscriber station receives all transmitted data packets but forwards only requested data packets to said predefined destination.

*16*  
24. (amended) An information transmission method comprising the steps of:

storing an information database on one or more memory devices;

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generating and storing on said memory devices a hierarchically arranged set of indices for referencing data in said information database, including distinct indices for referencing distinct portions thereof, and embedding said indices in said information database;

scheduling transmission of selected portions of said information database, including assigning each selected portion of said information database one or more scheduled transmission times;

transmitting a stream of data packets containing said selected portions of said information database in accordance with said scheduled transmission times;

said scheduling step including dividing said selected portions of said information database into a prioritized set of tiers, wherein all the selected portions of said information database in each tier are transmitted at a corresponding repetition rate, wherein the repetition rate for higher priority tiers is higher than the repetition rate for lower priority tiers;

receiving said transmitted stream of data packets at subscriber stations;

at each subscriber station, storing filter data corresponding to a subset of said indices. said filter data

specifying a set of requested data packets which comprises a subset of said transmitted data packets; and

at each subscriber station, downloading into a memory storage device those of said received data packets which match said specified set of requested data packets.

*a<sup>6</sup>  
cont* 17 25. (amended) The information transmission method of claim 24,  
wherein said generating step generates indices including timestamps therein, said timestamps indicating when each said portion of the information database referenced by an index is [schedule] scheduled to be transmitted;

said method including decoding said timestamps in said indices at said subscriber stations;

whereby subscribers can be informed as to [the how long it will take to receive] when a specified portion of the information database will be received.

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*a<sup>7</sup>* 23 31. (amended) The information transmission method of claim 24,  
wherein one or more subsets of said subscriber stations are interconnected via a local area network including a network server;

said method including receiving at said network server said transmitted stream of data packets on behalf of an associated set of [subscribers] subscriber stations, storing data in said network server referencing a specified set of data packets requested by said associated set of [subscribers] subscriber stations, and downloading into a memory storage device associated with said network server those of said received data packets which match said specified set of requested data packets;

whereby overhead associated with receiving the stream of data packets and downloading for storage a specified subset thereof is shared by a set of subscribers.

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*a<sup>8</sup>* 26 34. (amended) The information transmission method of claim 24,  
said receiving and downloading steps including:

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at each subscriber stations, temporarily storing received data packets in a buffer, storing a filter list comprising [packet] said filter data referencing said specified set of requested data packets, comparing said data packets temporarily stored in said buffer with said [packet] filter data and then forwarding those data packets in said buffer which match said [packet] filter data to a predefined destination;

whereby each subscriber station receives all transmitted data packets but forwards only requested data packets to said predefined destination.

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36. (amended) An information transmission method comprising the steps of:

storing an information database on one or more memory devices;

generating and storing on said memory devices a [hierarchically arranged] set of indices for referencing data in said information database, including distinct indices for referencing distinct portions thereof, and embedding said indices in said information database; said storing step further including embedding in said information database cross-referencing indices for cross-referencing related information:

[scheduling transmission of selected portions of said information database, including assigning each selected portion of said information database one or more scheduled transmission times;]

transmitting a stream of data packets containing [said] selected portions of said information database; [in accordance with said scheduled transmission times;]

receiving said transmitted stream of data packets at subscriber stations;

at each subscriber station, storing filter data corresponding to a subset of said indices, said filter data specifying a set of requested data packets which comprises a subset of said transmitted data packets; [and]

at each subscriber station, downloading into a memory storage device those of said received data packets which match said specified set of requested data packets; and [.]

said storing filter data step furthermore including automatically [specifying] adding, in accordance with predefined criteria, data corresponding to ones of said cross-referencing indices embedded in said downloaded data packets to said filter data so as to specify [specifying] additional data packets to be downloaded; [, wherein said requested data packets and said additional data packets each have associated indices at defined positions in said hierarchically arranged set of indices and said additional data packets are selected using predefined criteria with regard to said defined positions of their associated indices relative to the defined positions of said requested data packets;]

whereby said subscriber station automatically downloads data packets containing data related to data contained in requested data packets, thereby anticipating potential additional requests that a user may make and speeding access thereto.

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37. (amended) The information transmission method of claim 36, wherein said generating step generates indices including timestamps therein, said timestamps indicating when each said portion of the information database referenced by an index is [schedule] to be transmitted;

said method including decoding said timestamps in said indices at said subscriber stations;

whereby subscribers can be informed as to [the how long it will take to receive] when a specified portion of the information database will be received.

*A9* *28* 38. (amended) The information transmission method of claim *27*, wherein

each timestamp includes a repetition rate value indicating how often the associated portion of the information database is

transmitted, and a time skew value indicating in conjunction with said repetition rate value a [scheduled] transmission time for the associated portion of the information database.

*30* ~~39.~~ (amended) The information transmission system of claim ~~38~~, <sup>29</sup> scheduling transmission of selected portions of said information database, including assigning each selected portion of said information database one or more scheduled transmission times:

wherein the timestamp in indices referencing portions of the information database not scheduled for transmission is null, indicating that said referenced portions of the information database are transmitted only upon request by subscribers.

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B* ~~40.~~ (amended) The information transmission method of claim 36, [wherein]

said transmitting step [includes] including transmitting said stream of data packets to one or more cable television systems which receive the transmitted stream of data packets and retransmit said stream of data packets via cables to a set of subscribers, and including in said stream of transmitted data packets special data packets indicating where in said stream of data packets local programming data packets may be inserted; and one or more of said cable television systems inserting into the stream of retransmitted data packets local programming data packets at positions in said stream of data packets indicated by said special data packets.

41. (amended) The information transmission method of claim 40, [wherein]

said transmitting step including transmitting said stream of data packets to one or more cable television systems which receive the transmitted stream of data packets and retransmit said stream of data packets via cables to a set of subscribers.

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*cont*

and including in said stream of data packets special data packets designated as suitable for pre-emption by local programming; and one or more of said cable television systems [inserts] inserting into the stream of retransmitted data packets additional "local programming" data packets so as to pre-empt said special data packets designated as suitable for pre-emption.

42. (amended) The information transmission method of claim 36, wherein said scheduling step includes reserving a portion of transmission bandwidth available for said transmitting step said transmitting step including assigning transmission times to said selected portions of said information database and reserving transmission times for transmitting portions of said information database requested by subscribers;

said method including receiving requests from subscribers, said requests each specifying a portion of said information database; and

said [scheduling] transmitting step including [scheduling transmission of] transmitting said requested portions of said information database during said reserved transmission times.

43. (amended) The information transmission method of claim 36, wherein one or more subsets of said subscriber stations are interconnected via a local area network including a network server;

said method including receiving at said network server said transmitted stream of data packets on behalf of an associated set of [subscribers] subscriber stations, storing filter data in said network server referencing a [specified] set of requested data packets, said filter data representing data packets requested by said associated set of [subscribers] subscriber stations, and downloading into a memory storage device associated with said network server those of said received data packets which match said specified set of requested data packets;

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said network server further adding, in accordance with predefined criteria, data corresponding to ones of said cross-referencing indices embedded in said downloaded data packets to said filter data stored by said network server so as to specify additional data packets to be downloaded:

whereby overhead associated with receiving the stream of data packets and downloading for storage a specified subset thereof is shared by a set of subscribers.

46. (amended) The information transmission method of claim 36, said receiving and downloading steps including:

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at each subscriber stations, temporarily storing received data packets in a buffer, storing a filter list comprising [packet] said filter data referencing said specified set of requested data packets, comparing said data packets temporarily stored in said buffer with said [packet] filter data and then forwarding those data packets in said buffer which match said [packet] filter data to a predefined destination;

whereby each subscriber station receives all transmitted data packets but forwards only requested data packets to said predefined destination.

New Claims:

*Stamps*

47. The information transmission system of claim 20, said network server including memory caching means for storing in a memory cache said additional data packets until said memory cache is full, and then overwriting ones of said additional data packets that have not been accessed by any of said associated set of subscriber stations with subsequently received ones of said additional packets.

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48. The information transmission system of claim 20, said network server including memory caching means for storing in a memory cache said additional data packets until said

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memory cache is full, and then overwriting ones of said additional data packets with subsequently received ones of said additional packets in accordance with predefined criteria.

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cont*

49. The information transmission method of claim 43, said network server storing in memory cache said additional data packets until said memory cache is full, and then overwriting ones of said additional data packets that have not been accessed by any of said associated set of subscriber stations with subsequently received ones of said additional packets.

50. The information transmission method of claim 43, said network server storing in memory cache said additional data packets until said memory cache is full, and then overwriting ones of said additional data packets with subsequently received ones of said additional packets in accordance with predefined criteria.

*Sab B6*

51. An information transmission system comprising:  
a set of one or more computer memory devices on which is stored an information database;  
database editing means, coupled to said one or more computer memory devices, for generating a set of indices for referencing data in said information database, including distinct indices for referencing distinct portions thereof, and for embedding said indices in said information database;  
scheduling means for scheduling transmission of selected portions of said information database, including assigning each selected portion of said information database a transmission repetition rate and one or more scheduled transmission times in accordance with said assigned repetition rate;  
transmission means, coupled to said scheduling means and said one or more computer memory devices, for transmitting a stream of data packets containing said selected portions of said

*A//*  
*cont*

information database in accordance with said scheduled transmission times;

subscriber stations which receive said transmitted stream of data packets, each subscriber station including filtering means for storing filter data corresponding to a subset of said indices, said filter data specifying a set of requested data packets which comprises a subset of said transmitted data packets, and for downloading into a memory storage device those of said received data packets which match said specified set of requested data packets.

52. The information transmission system of claim 51,  
said transmission means including a central program transmission station which transmits said stream of data packets, and one or more cable television systems which receive the transmitted stream of data packets and retransmit said stream of data packets via cables to a set of subscribers, said central program transmission station including means for transmitting in said stream of data packets special data packets indicating where in said stream of data packets local programming data packets may be inserted; and

one or more of said cable television systems including means for inserting into the stream of retransmitted data packets local programming data packets at positions in said stream of data packets indicated by said special data packets.

53. The information transmission system of claim 51,  
said transmission means including a central program transmission station which transmits said stream of data packets, and one or more cable television systems which receive the transmitted stream of data packets and retransmit said stream of data packets via cables to a set of subscribers, said central program transmission station including means for transmitting in said stream of data packets special data packets designated as suitable for pre-emption by local programming; and

*All  
cont*

one or more of said cable television systems includes means for inserting into the stream of retransmitted data packets additional "local programming" data packets so as to pre-empt said special data packets designated as suitable for pre-emption.

54. The information transmission system of claim 51, said scheduling means including means for reserving transmission times for transmitting portions of said information database requested by subscribers;

said information transmission system including subscriber request response means for receiving requests from subscribers, said requests each specifying a portion of said information database; and

said transmission means including means for transmitting said requested portions of said information database during said reserved transmission times.

55. The information transmission system of claim 51, wherein one or more subsets of said subscriber stations are interconnected via a local area network, including a network server which receives said transmitted stream of data packets on behalf of an associated set of subscriber stations, said network server including means for referencing a set of requested data packets, said set of requested data packets representing data packets requested by said associated set of subscriber stations, and means for downloading into a memory storage device those of said received data packets which match said specified set of requested data packets;

said database editing means further including means for embedding in said information database cross-referencing indices for cross-referencing related information;

said network server further including means for adding, in accordance with predefined criteria, data packets corresponding ones of said cross-referencing indices embedded in said

downloaded data packets to said set of requested data packets so as to specify additional data packets to be downloaded;

whereby overhead associated with receiving the stream of data packets and downloading for storage a specified subset thereof is shared by a set of subscribers.

56. An information transmission method comprising the steps of:  
storing an information database on one or more memory devices;

generating and storing on said memory devices a set of indices for referencing data in said information database, including distinct indices for referencing distinct portions thereof, and embedding said indices in said information database;

scheduling transmission of selected portions of said information database, including assigning each selected portion of said information database a transmission repetition rate and one or more scheduled transmission times in accordance with said assigned repetition rate;

transmitting a stream of data packets containing said selected portions of said information database in accordance with said scheduled transmission times;

receiving said transmitted stream of data packets at subscriber stations;

at each subscriber station, storing filter data corresponding to a subset of said indices, said filter data specifying a set of requested data packets which comprises a subset of said transmitted data packets; and

at each subscriber station, downloading into a memory storage device those of said received data packets which match said specified set of requested data packets.

57. The information transmission method of claim 56, wherein said generating step generates indices including timestamps therein, said timestamps indicating when each said portion of the information database referenced by an index is to be transmitted;

*Sub C5*  
said method including decoding said timestamps in said indices at said subscriber stations;

whereby subscribers can be informed as to when a specified portion of the information database will be received.

*HQ*<sup>58</sup> 59. The information transmission method of claim ~~57~~<sup>59</sup>, wherein each timestamp includes a repetition rate value indicating how often the associated portion of the information database is transmitted, and a time skew value indicating in conjunction with said repetition rate value a transmission time for the associated portion of the information database.

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Sub C6*  
59. The information transmission system of claim 58, scheduling transmission of selected portions of said information database, including assigning each selected portion of said information database one or more scheduled transmission times;

wherein the timestamp in indices referencing portions of the information database not scheduled for transmission is null, indicating that said referenced portions of the information database are transmitted only upon request by subscribers.

*Sub B7*  
60. The information transmission method of claim 56, said transmitting step including transmitting said stream of data packets to one or more cable television systems which receive the transmitted stream of data packets and retransmit said stream of data packets via cables to a set of subscribers, and including in said stream of data packets special data packets indicating where in said stream of data packets local programming data packets may be inserted; and

one or more of said cable television systems inserting into the stream of retransmitted data packets local programming data packets at positions in said stream of data packets indicated by said special data packets.

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61. The information transmission method of claim 56,  
said transmitting step including transmitting said stream of  
data packets to one or more cable television systems which  
receive the transmitted stream of data packets and retransmit  
said stream of data packets via cables to a set of subscribers,  
and including in said stream of transmitted data packets special  
data packets designated as suitable for pre-emption by local  
programming; and

one or more of said cable television systems inserting into  
the stream of retransmitted data packets additional "local  
programming" data packets so as to pre-empt said special data  
packets designated as suitable for pre-emption.

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62. The information transmission method of claim 56,  
said transmitting step including assigning transmission  
times to said selected portions of said information database and  
reserving transmission times for transmitting portions of said  
information database requested by subscribers;

said method including receiving requests from subscribers,  
said requests each specifying a portion of said information  
database; and

said transmitting step including transmitting said requested  
portions of said information database during said reserved  
transmission times.

63. The information transmission method of claim 56, wherein one  
or more subsets of said subscriber stations are interconnected  
via a local area network including a network server;

said storing an information database step further including  
embedding in said information database cross-referencing indices  
for cross-referencing related information;

said method including receiving at said network server said  
transmitted stream of data packets on behalf of an associated set  
of subscriber stations, storing filter data in said network  
server referencing a set of requested data packets, said set of

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requested data packets representing a union of data packets requested by said associated set of subscriber stations, and downloading into a memory storage device associated with said network server those of said received data packets which match said set of requested data packets;

said network server further adding, in accordance with predefined criteria, data corresponding to ones of said cross-referencing indices embedded in said downloaded data packets to said filter data stored by said network server so as to specify additional data packets to be downloaded;

whereby overhead associated with receiving the stream of data packets and downloading for storage a specified subset thereof is shared by a set of subscribers.

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64. An information transmission system comprising:

a set of one or more computer memory devices on which is stored an information database;

database editing means, coupled to said one or more computer memory devices, for generating a set of indices for referencing data in said information database, including distinct indices for referencing distinct portions thereof, and for embedding said indices in said information database; said database editing means further including means for embedding in said information database cross-referencing indices for cross-referencing related information;

transmission means, coupled to said one or more computer memory devices, for transmitting a stream of data packets containing said selected portions of said information database;

subscriber stations that each receive said transmitted stream of data packets, each subscriber station including filtering means for storing filter data, said filter data specifying a set of requested data packets which comprises a subset of said transmitted data packets, and for downloading into a memory storage device associated with said each subscriber

station those of said received data packets which match said filter data stored by said each subscriber station;

    said subscriber stations including a network server interconnected via a local area network to a set of network subscriber stations;

    said network server including means for receiving said transmitted stream of data packets on behalf of said network subscriber stations; said filter data stored by said network server referencing a specified set of requested data packets, said specified set of requested data packets representing data packets requested by said network subscriber stations;

    said network server further including means for specifying additional data packets to be downloaded into said memory storage device associated with said network server by automatically adding to said filter data stored by said network server, in accordance with predefined criteria, data corresponding to ones of said cross-referencing indices embedded in said data packets downloaded by said network server;

    whereby overhead associated with receiving the stream of data packets and downloading for storage a specified subset thereof is shared by a set of network subscriber stations.

*47*  
55. An information transmission method comprising the steps of:  
    storing an information database on one or more memory devices;

    generating and storing on said memory devices a set of indices for referencing data in said information database, including distinct indices for referencing distinct portions thereof, and embedding said indices in said information database; said storing step further including embedding in said information database cross-referencing indices for cross-referencing related information;

    transmitting a stream of data packets containing selected portions of said information database;

receiving said transmitted stream of data packets at subscriber stations, said subscriber stations including a network server interconnected via a local area network to a set of network subscriber stations;

each subscriber station storing filter data corresponding to a subset of said indices, said filter data specifying a set of requested data packets which comprises a subset of said transmitted data packets;

each subscriber station downloading into a memory storage device associated with said each subscriber station those of said received data packets which match said filter data stored by said each subscriber station;

said receiving step including receiving at said network server said transmitted stream of data packets on behalf of said network subscriber stations; said filter data stored by said network server referencing a specified set of requested data packets, said specified set of requested data packets representing data packets requested by said network subscriber stations;

said network server specifying additional data packets to be downloaded into said memory storage device associated with said network server by automatically adding to said filter data stored by said network server, in accordance with predefined criteria, data corresponding to ones of said cross-referencing indices embedded in said data packets downloaded by said network server;

whereby overhead associated with receiving the stream of data packets and downloading for storage a specified subset thereof is shared by a set of network subscriber stations.

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66. An information transmission system comprising:

a set of one or more computer memory devices on which is stored an information database;

database editing means, coupled to said one or more computer memory devices, for generating a set of indices for referencing data in said information database, including distinct indices for